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The moderating role of innovative organizational climate on the relationship between environmental monitoring social monitoring, governance monitoring and sustainable development goals (case of Vietnam)

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ABSTRACT

Globally, the achievement of sustainable development goals (SDGs) is a significant requirement for companies and economies due to the high uncertainty of environmental and economic conditions. Thus, the present research investigates the impact of effective environmental, social and governance (ESG) monitoring on the SDGs achievement of textile industry in Vietnam. The research also examines the mediating impact of innovative organizational climate among the association of ESG monitoring and SDGs achievement. The questionnaires were adapted to collect the primary data from the selected respondents. Smart-PLS was applied to examine the data reliability and linkage among variables. The results revealed that environmental monitoring and social monitoring have a positive linkage with the SDGs achievement. The findings also exposed that innovative organizational climate significantly mediates among environmental monitoring, social monitoring and SDGs achievement. This article guides the policymakers while formulating regulations related to the ESG monitoring to attain the SDGs.

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Introduction

All the countries, because of the increasing competition and increasing human needs, are struggling to expand the scope of the economy. However, the sudden and remarkable increase in economic activities causes the destruction to the planet and the national resources, which are already limited in the world. A number of individuals and institutions also participate in social or philanthropic activities, but this participation is not sufficient to change the situation. Many scholars have paid attention to the business management and regulations for social progress as well as the environmental protection developing sustainability in the country development (Flores & Chang, 2020; Schroeder et al., 2019). Because of the increasing awareness about the

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social and environmental wellbeing among the general people, the economic entities and government not only focus on the financial development in the present that is temporary but through effective policies try to make the development sustainable with resources preservation and assuring fluent undertaking of economic activities (Dadelo, 2020; Heinrich et al., 2020; Rasoolimanesh et al., 2020). In the same line, in 2015, a resolution was passed by UN General Assembly whose agenda was to bring sustainable development by 2030. In this agenda, 17 SDGs were presented, and these SDGs had 169 objectives. Before the UN General Assembly resolution, there were Millennium Development Goals (MDGs), and 2030 Agenda for sustainable development along with 17 SDGs is an extension to MDGs in the sense that these 17 SGDs address the global developmental problems and have been presented creating a situation any country towards sustainable development (Dlalisa & Govender, 2020; Gondek, 2021; Herrero et al., 2021). The 17 SDGs by UN General Assembly are of the three types as per social, environmental, and financial development perspectives on the basis of five Ps, namely planet, people, peace, prosperity, and partnership. The aim of 17 SDGs is to form a country that has features like quality resources, effective resource allocation, individuals and group wellbeing, and a healthful, clean environment for work (Di Vaio et al., 2020; Kikulwe & Asindu, 2020; Koloba, 2020; Singh & Shaik, 2021).

ESG score is a collection of standards, mechanisms, and practices specially designed for the monitoring, evaluation, and regulation of firms' social, environmental, and corporate performance. ESC score is the method to analyze how much the concerned business firm shows a conscious or responsible behavior towards the social and environmental wellbeing and its own financial progress with the contribution to the country's economic growth (Al-Omoush et al., 2020; Escrig-Olmedo et al., 2019; Marín, 2020). ESG also includes the monitoring of not only the sense of responsibility of the firms but the effectiveness of the practices which firms undertake in this regard. 17 SDGs by the UN are interrelated and interdependent on social, environmental and firm governance. The SDGs for a country can only be achieved when different institutions and firms make efforts to save the environment from the pollution caused by human activities, enhance the social wellbeing of the stakeholders through their positive behavior or policies, and improve in firms operations and its effectiveness (Guo et al., 2021; Khaled et al., 2021; Yousaf et al., 2021). The business firms individually or in collaboration feel their responsibility towards the planet and follow the mechanisms for monitoring and regulating the activities to mitigate their adverse impact on the environmental quality. These firms help the country to achieve the SDGs like climate action, clean atmosphere, proper sanitation, clean water and food, sound health, preservation of resources, human wellbeing, etc. (Consolandi et al., 2020; Gadeikiene & Svarcaite, 2021; Herrera-Echeverry et al., 2020). Similarly, social monitoring provides help through which firms are able to regulate and evaluate the social practices. It basically enables the firm to achieve SDGs which are based on the foundation of social well-being, hence bringing sustainability in the development of country (Antinienė et al., 2021; Mahmood et al., 2021; Saetra, 2021). There is no doubt that social as well as environmental development are the responsibility of organizations and therefore covers a major chunk of SDGs of UN general assembly.

However, the other needs of business firms such as financials and economic are also equally important, hence, demand attention. The corporate governance monitoring helps achieve the economic goals of the firms and improve their finances which accelerate the share of firms in the achievement of SDGs (Betti et al., 2018; Özer et al., 2020; Piligrimienė et al., 2021).

The current study analyzes the impacts of ESG practices like environmental monitoring, social monitoring, and governance monitoring on SDGs and examines the linking role of innovative organizational climate between environmental monitoring, social monitoring, and governance monitoring and SDGs in Vietnam. Vietnam is a developing country having a lower-middle-income economy. This economy is based on a socialist-oriented market. As compared to the world countries in terms of gross domestic country, it ranks at 37th place as the largest one in 2021, while according to the purchasing par parity, it ranks at 23rd largest country. The GDP of Vietnam economy is $369.5 billion in 2021 (Dabbous & Tarhini, 2021; Tran, 2018). The economy of Vietnam is divided into 3 major sectors like Agriculture, Industry, and Service. In Vietnam, the economic growth is based on much equitable and inclusive as compared to the world countries. As per the Inclusive Development Index WEF, the Vietnam economy is one of the best countries, and it exceeds the other countries which have inclusive economies over the world (Tien et al., 2021; Zhao et al., 2021). The country is making rapid development in its textile industry. It is a part of the development strategy by 2030. Currently, Vietnam is the 2nd largest exporter in the world, and the textile industry has a 16 per cent share in the country's GDP. The country is the largest garment producer in the Asian region. About six thousand firms are there in the textile industry in Vietnam (Doan, 2019). It provides employment opportunities to 2.5 million people without the distinction between male and female workers. Almost 2500 firms serve the country's exports. The government has made many sustainable developmental strategies for textiles and other manufacturing enterprises (Nguyen & Vu, 2021; Tan et al., 2021).

The government currently reviews the policies & strategies, and amendments are made. It is evident by the Development Strategy Action Plan 2011–2020, whose objective is to initiate proper procedures for making equitable growth in all the regions over the country, seeking equal success opportunities, and developing communication and cooperative relationships among the regions, and amplify the developmental advantages (Phan et al., 2020; Sadiq et al., 2021). By 2017, under the instructions of the UN, Vietnam both public and private officials have started the basic work on sustainable development by presenting the 'One Strategic Plan', with the incorporation of the SDGs with Socio-Economic Development Strategy (2011–2020) as well as the Socio-Economic Development Plan (2016–2020) (Giang et al., 2020; Sadiq, Amayri, et al., 2022). The 'One Strategic Plan' is more appropriate for officials to implement the SDGs in the most effective manner with attention to more significant areas, like human resource investment, justice, peace and prosperity, the resilience of climate and environmental protection, and inclusive governance. A National Action Plan has also been designed by Vietnam to reformation in the development policies and makes amendments to adapt to the SDGs requirements (Ngo Dang et al., 2017; Sadiq, Ngo, et al., 2022).

Though a number of developmental plans and strategies have been made for the achievement of SDGs, the efforts are shown at the economic and individual firm level; still, the SDGs achievement requires much attention. The present study considers this need and gives way how to achieve SDGs. The study objective is to examine the role of ESG practices like environmental monitoring, social monitoring, and corporate monitoring along with innovative organizational climate in achieving the SDGs. It is also to analyze the role of organizational innovation climate among ESG practices like environmental monitoring, social monitoring, and corporate monitoring along with innovative organizational climate and the SDGs. For its objectives and its contributions, it has great significance. (1) Though the authors have taken a subject that is already there in the literature, it goes to height for the description of ESG and SDGs relationship. (2) In the past literature, the ESG, which is a score for the evaluation of firm performance with the purpose of investment in the firm, has been examined simply without elaborating its practices individually for the SDGs achievement. The present study in which ESG practices like environmental monitoring, social monitoring, and corporate monitoring individually are associated with SDGs is a distinctive study in the literature. (3) The use of innovative organizational climate as a mediator between ESG practices: environmental monitoring, social monitoring, and corporate monitoring and SDGs is something new in the literature. (4) The analysis of ESG practices in relation to SDGs achievement with evidence from the textile industry of Vietnam adds a lot to the literature.

The current study is structured as: the 2nd part deals with influences of ESG practices, environmental monitoring, social monitoring, corporate monitoring and innovative organizational climate on achieving the SDGs with the lens of past studies. The 3rd part describes what methodology is applied to collect data and extract results about the relationship among environmental monitoring, social monitoring, and corporate monitoring, innovative organizational climate and achieving the SDGs. In the next part, these results are compared to other study results, and thus, they are approved. The paper concludes with conclusions, Implications, and limitations.

Literature review

The worth of countries is determined by the economic growth they have. The higher economic growth places the country in a higher position. But, just the achievement of higher position among the countries is not enough. After getting a higher position, it is necessary to sustain this position through sustainable development. The purpose of sustainable development is only to have higher economic growth but to ensure the quality of resources in abundance, improve the health of humans, and bring social development Caiado et al. (2018). A set of SDGs was proposed by UN-GA not only to attain economic growth but also to improve resource quality and bring forth the healthy, prosperous public. Social, environmental, and economic development are the three pillars on which the 17 SDGs are established. ESG, which refers to the set of standards or mechanisms for the social, environmental, and economic monitoring & governance of the firms, helps sustain social, environmental, and economic firm performance and achieves the SDGs (Allen et al., 2018; Kamarudin et al., 2021;

Moslehpour, Al-Fadly, et al., 2022). This study explores the role of ESG practices like environmental monitoring, social monitoring, and corporate monitoring along with innovative organizational climate in achieving the SDGs. The relationship of ESG practices like environmental monitoring, social monitoring, corporate monitoring and innovative organizational climate in achieving the SDGs have a significant place in the literature (Folqué et al., 2021; Rajesh et al., 2022). The study takes many past studies to establish hypotheses about the relationship among ESG practices like environmental monitoring, social monitoring, and corporate monitoring, innovative organizational climate and achieving the SDGs.

Environmental monitoring is one of the dimensions of ESG. It is the formation and use of different techniques and instruments to analyze an environment at a specific region, take its quality features, and through environmental parameters, quantify the impact of an activity on the environment. The purpose of environmental monitoring in ESG is to divert the focus of firms towards their negative environmental impacts and encourage investments or other efforts to mitigate these influences so that the environmental performance is high and SDGs related to environmental quality, climate balance, the heath of living creatures, human health and natural resource protection, etc. (Kørnøv et al., 2020; Moslehpour et al., 2021). According to research by Alarcon Ferrari et al. (2021) and Moslehpour, Chang, et al. (2022), a number of interconnected SDGs can be attained if the firms themselves or outsiders conduct environmental monitoring effectively and regulations for maintaining the environmental quality through reduction of adverse impacts of business operations from the environment. An article, Vollmer et al. (2021) examines the impact of environmental monitoring and governance and achieving 6th and 3rd SDGs, which are clean water and sanitation and good health. For the purpose of analysis, in Latin America, three different river basins, such as Alto Mayom, Guandu and Bogotá Freshwater Health Index was employed. Based on the data through a survey conducted to stakeholders about their perceptions of environmental monitoring and governance role in SDGs achievement measured with a 0–100 scale. The findings reveal that environmental monitoring and governance helps achieve the 6th and 3rd SDGs.

H1: Environmental monitoring in ESG implication has a positive relation to SDGs.

Social monitoring is a dimension of ESG. Social monitoring is the observation of the perceptions or thinking of the people about the firm product quality, customer services, and its behavior, the quality relationship and communication among the firm and its stakeholders, and influences of firm activities and decisions on stakeholders' wellbeing (Chipalkatti et al., 2021; Liu et al., 2021; Peng & Huang, 2020). The purpose of social monitoring is to find and mitigate the flaws in the business policies, its operations and conduct, which can affect the stakeholders' health or wellbeing. The health of the people and their wellbeing from different perspectives are part of many SDGs. Social monitoring in ESG makes the firms take initiatives to strengthen their relationship to the stakeholders with care for their needs, rights, success, prosperity and wellbeing along with the performance of economic activities. These advantages of social monitoring provide the basis for SDGs whose objectives are people, prosperity, and partnership (Dimian et al., 2021; Liu, Yin, et al., 2022; Romano et al., 2020). The study by De Guimarães et al. (2020) was an investigation

of SDGs achievement through social monitoring & governance and quality of life. It is a form of quantitative research with descriptive nature, and a survey was conducted to 829 residents in smart cities of Northeast Brazil. The authors took the help of multivariate data technique and SEM methodology to explore the relationship between social monitoring & governance and SDGs achievement. The study posits that social monitoring & governance through effective communication networks improves the quality of life. Since the employers with great care of the employees' health, social, and financial needs motivate them to work effectively. This is helpful in achieving SDGs like efficient performance, industrial growth, no poverty, good health, and well-fare. Hence,

H2: Social monitoring in ESG implication has a positive relation to SDGs.

Corporate governance monitoring is one of the significant ESG score practices, whose execution leads the firm to contribute to SDGs achievement (Dahlmann et al., 2019; Huang et al., 2021a; Liu, Lan, et al., 2022; Zygmunt, 2020). Corporate governance monitoring refers to the collection of procedures or mechanisms applied to monitor, analyze, evaluate, and assess the effectiveness of management and operations of an organization. The improvement in corporate efficiency and productivity as a result of corporate monitoring lead the way to success in the struggle to achieve SDGs (Li et al., 2021; Richterová et al., 2021; Sciarelli et al., 2021). Lan et al. (2022) and Martínez-Ferrero and García-Meca (2020), made an investigation for the efficiency of internal corporate governance monitoring and its role in getting the SDGs by UN-GA. The study sample is based on European listed firms for one year during 2016 and 2017. The board structure, CEO independence, and board attendance are factors of internal governance that are to be monitored for the achievement of SDGs. Through several regression analyses application, it is found that the firms where corporate governance monitoring is conducted frequently, it enables the firm to show their efforts for SDGs achievement in the sustainability reports. Governance monitoring has a positive relation to SDGs. Huang et al. (2021b) and Pizzi et al. (2021), identifies how the firms can contribute to the achievement of 17 SDGs by 2030. Authors selected 153 Public Interest Entities in Italy as a sample of their research. The research implies that under corporate governance monitoring, the business departments are effectively managed through appropriate board size, membership, independence and good organizational structure. The corporate governance monitoring, if it is effectively implemented, improves firms' social and environmentally friendly performance along with financial development. Thus, it clears the way to achieve SDGs. Hence:

H3: Governance monitoring in ESG implication has a positive relation to SDGs.

The research of Sachin and Rajesh (2021) and Sinha et al. (2020) throws light on the interrelationship between environmental monitoring in ESG, innovation-oriented organizational climate, and SDGs attainment. For the environmental monitoring, the observers need to apply innovative techniques and procedures which are useful for analyzing the quality of the environment and the changes because of the activities done. An innovation-oriented organizational climate comes into existence. In such an organizational climate, where creativity and innovation are maintained, it becomes

easy for the organization to provide a clean and healthy environment to stakeholders that are included in SDGs. Huang et al. (2021c) and Moallemi et al. (2020) present views about the environmental monitoring in ESG, innovation-oriented organizational climate, and SDGs attainment. The study implies that creativity and innovation are the factors that bring newness, improvement, and value creation to anything that becomes necessary in the execution of environmental monitoring & governance in ESG. The inclusion of these factors in the organizational environment help achieve SDGs as they require innovation, maintenance, and improvement. Thus, environmental monitoring in ESG, innovation-oriented organizational climate, and SDGs attainment are bound in a relationship. Similarly, Parmentola et al. (2022), have also found a link among the environmental monitoring in ESG and SDGs attainment through innovation-oriented organizational climate. Based on the above discussion, it can be said:

H4: Innovative organizational climate is a considerable mediator between environmental monitoring in ESG and the SDGs attainment.

The literary workout of Chien, Sadiq, et al. (2021) and Yang et al. (2022) identifies the relationship between social monitoring in ESG, innovative organizational climate, and SDGs attainment. The workout reveals that for social monitoring in ESG, innovative techniques or methods are required, and afterwards, for the regulation of social behavior of the firms and their social activities for the wellbeing of people in contact, new plans with novel procedures and resources are required. Thus, an innovative organizational climate develops. Such organizational climate motivates organizational personnel to devise and implement something new for attaining the SDGs for the country. So, the study builds a link between environmental monitoring in ESG and SDGs attainment through innovative organizational climate. The study conducted by Chien, Zhang, et al. (2021) and Iamandi et al. (2019) integrates the mutual relation among social monitoring in ESG, innovative organizational climate, and SDGs attainment. For the execution of social monitoring and regulations, the agencies or the firms themselves apply innovative technology for communication to stakeholders and innovative techniques to meet their needs and requirements. This develops an innovation-oriented organizational climate but, in turn, improves the firms' performance on innovative standards and help achieve SDGs like optimal consumption and production, innovation, infrastructure improvement, and economic growth. ––, found that social monitoring through ESG develops the innovative organizational climate, and innovative organizational climate help achieve SDGs presented by UN-GA for global sustainable development. That is why:

H5: Innovative organizational climate is a considerable mediator between governance monitoring in ESG and the SDGs attainment.

Gangi et al. (2019), through empirical research, identify the relationships among corporate governance monitoring in ESG, innovative organizational climate, and SDGs attainment. The study implies that through the periodical effective corporate governance monitoring, the working of different organizational departments is evaluated and if any flaw, weakness, or risk is found there, the reasons are found and tried to remove. In this matter, creativity and innovation are the most significant

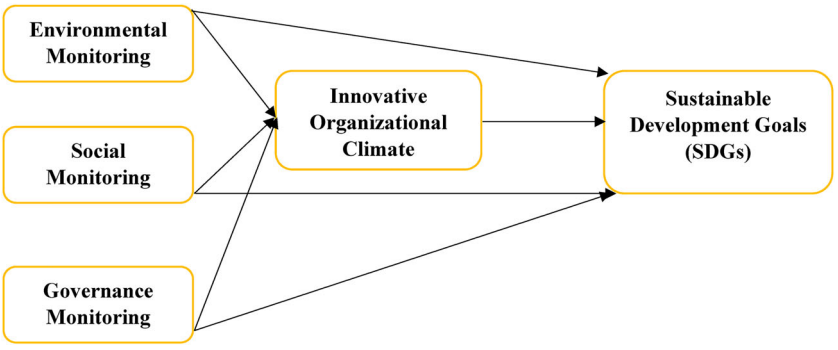

Figure 1. Theoretical model.
Source: Author's Estimation.

factors which could change the situation. The developed innovative organizational climate tends the firms to work efficiently and innovatively and assists to achieve SDGs. In research, Chien et al. (2022) and Manning et al. (2019) investigate the corporate governance monitoring in ESG, innovative organizational climate, and SDGs attainment. Environmental monitoring, social monitoring, and corporate governance monitoring are the three practices of ESG. These practices are interlinked and contribute much to each other. Corporate governance monitoring develops innovativeness in the organizational climate (Li et al., 2021; Sciarelli et al., 2021). Motivate the personnel to develop creativity in their activities improve the firms' effectiveness, including social, environmental and economic performance, which collectively construct a way to achieve almost all the SDGs. Based on the above discussion, we put hypothesis.

H6: Innovative organizational climate is a considerable mediator between governance monitoring in ESG and the SDGs attainment.

Methodology

The article investigates the impact of effective ESG monitoring on the SDGs achievement and also examines the mediating impact of innovative organizational climate among the association of ESG monitoring and SDGs achievement of textile industry in Vietnam. The questionnaires were adapted to collect the primary data from the selected respondents. The employees of textile industry are the respondents selected using 'purposive sampling'. The questionnaires were sent to these respondents using mail and personal visits. In addition, around 515 surveys were sent, but after a few days, only 292 were returned, representing about 56.70 per cent. Moreover, Smart-PLS was applied to examine the data reliability and linkage among variables. It is an effective tool that provides primary data analysis using complex frameworks and also using large sample sizes (Ainou et al., 2022; Hair et al., 2021). The current study has taken SDGs achievement as the dependent variable, innovative organizational climate (IOC) is taken as the mediation variable, and environmental monitoring (EM), social monitoring (SM), and governance monitoring (GM) has been taken as predictors. These variables are mentioned in Figure 1.

Table 1. Measurement of environmental monitoring.

Variables	Items	Statements	Source
Environmental monitoring	EM1	'You have fully implemented the environmental behaviors with your key supplier in the last two years'.	(Marshall et al., 2015)
	EM2	'You monitored their compliance with your environmental requirements'.	
	EM3	'You sent environmental questionnaires in order to monitor their compliance'.	
	EM4	'You monitored their commitment to environmental improvement goals'.	
	EM5	'You conducted environmental audits of their operations'.	

Source: Author's Estimation.

Table 2. Measurement of social monitoring.

Variables	Items	Statements	Source
Social monitoring	SM1	'And thinking of health and safety behaviors with your key supplier, have you fully implemented the social behaviors'.	(Marshall et al., 2015)
	SM2	'You monitored their compliance with your health and safety requirements'.	
	SM3	'You sent health and safety questionnaires to them in order to monitor their compliance'.	
	SM4	'You monitored their commitment to health and safety improvement goals'.	
	SM5	'You conducted audits of the health and safety of their employee'.	

Source: Author's Estimation.

Table 3. Measurement of governance monitoring.

Variables	Items	Statements	Source
Governance monitoring	GM1	'The firm has formal written agreements outlining social issues'.	(Awan et al., 2018)
	GM2	'The firm formal written agreements outlining how to handle technical requirements'.	
	GM3	'The firm formal written agreements that detail the rights and obligations of both parties'.	
	GM4	'The firm formal written agreements that precisely state the legal remedies for failure to perform'.	

Source: Author's Estimation.

The current study has taken environmental monitoring (EM) as the independent variable and has five items scale extracted from Marshall et al. (2015). The measurement is given in Table 1.

In addition, the current study has also taken social monitoring (SM) as the independent variable and has five items scale extracted from Marshall et al. (2015). The measurement is given in Table 2.

Moreover, the present article has also adopted governance monitoring as the predictor and has four items scale extracted from the previous literature, such as Awan et al. (2018). The measurement is given in Table 3.

On the other hand, the present article has also has adopted the innovative organizational climate (IOC) as the mediating variable and has eight items scale extracted from the previous literature such as Balozi (2017). The measurement is given in Table 4.

Finally, the present article has also adopted the SDGs achievement as the dependent variable and has seventeen items scale extracted from past literature like Zamora-Polo et al. (2019). The measurement is given in Table 5.

Table 4. Measurement of innovative organizational climate.

Variables	Items	Statements	Source
Innovative organizational climate	IOC1	'In this organization, I have often been encouraged to propose new ideas'.	(Balozi, 2017)
	IOC2	'In this organization, I have been praised for my innovation behavior'.	
	IOC3	'In this organization, I can challenge others' ideas through positive thinking'.	
	IOC4	'In this organization, I was expected to work in a more creative way'.	
	IOC5	'In this organization, sufficient budget is provided to support the development of an innovative project'.	
	IOC6	'In this organization, it is acceptable for staff member like me to fail to achieve the expected outcome while carrying out an innovative learning plan'.	
	IOC7	'In this organization, my superior value the contribution I made'.	
	IOC8	'In this organization, I can freely exchange ideas'.	

Source: Author's Estimation.

Table 5. Measurement of SDGs.

Variables	Items	Statements	Source
Sustainable Development Goals	SDG1	'My organization takes part in poverty reduction'.	(Zamora-Polo et al., 2019)
	SDG2	'My organization plays a significant role in hunger-reduction'.	
	SDG3	'My organization is working for health care and wellness'.	
	SDG4	'My company also provides quality education to their employees and employees' family'.	
	SDG5	'My firm always works for gender equality'.	
	SDG6	'I have access to clean water and sewerage'.	
	SDG7	'My firm has the accessible and non-polluting energy'.	
	SDG8	'My firm takes part in decent work and economic growth'.	
	SDG9	'My firm has the innovation and effective infrastructure'.	
	SDG10	'My firm always works for reducing inequalities'.	
	SDG11	'My firm is creating sustainable cities and communities'.	
	SDG12	'My firm has the ability of responsible consumption and production'.	
	SDG13	'My organization always considers the weather care'.	
	SDG14	'My firm always cares about underwater life'.	
	SDG15	'My firm always cares for life in terrestrial ecosystems'.	
	SDG16	'My firm takes part in peacebuilding, justice, and corruption-free institutions'.	
	SDG17	'My organization strives to build alliances to achieve the above goals'.	

Source: Author's Estimation.

Study findings

The findings in Table 6 show the convergent validity related to the items correlation using 'factor loadings, Alpha, average variance extracted (AVE) and composite reliability (CR)'. The outcomes indicate that the 'CR and Alpha' values are higher than 0.70, factor loadings are more than 0.40, and AVE values are larger than 0.50. These figures exposed a high correlation between items and valid convergent validity.

The findings also show the discriminant validity related to the variables correlation using Fornell Larcker, cross-loadings and Heterotrait Monotrait (HTMT) ratio.

Table 6. Convergent validity.

Constructs	Items	Loadings	Alpha	CR	AVE
Environmental monitoring	EM1	0.856	0.910	0.933	0.735
	EM2	0.833			
	EM3	0.894			
	EM4	0.823			
	EM5	0.880			
Governance monitoring	GM1	0.924	0.909	0.932	0.773
	GM2	0.910			
	GM3	0.831			
	GM4	0.849			
Innovative organizational climate	IOC1	0.802	0.920	0.935	0.642
	IOC2	0.784			
	IOC3	0.837			
	IOC4	0.811			
	IOC5	0.832			
	IOC6	0.819			
	IOC7	0.793			
	IOC8	0.729			
Sustainable Development Goals	SDG1	0.466	0.935	0.940	0.503
	SDG10	0.770			
	SDG11	0.847			
	SDG12	0.653			
	SDG13	0.657			
	SDG14	0.624			
	SDG15	0.669			
	SDG16	0.645			
	SDG17	0.715			
	SDG2	0.682			
	SDG3	0.480			
	SDG4	0.674			
	SDG5	0.850			
	SDG6	0.773			
	SDG8	0.850			
	SDG9	0.846			
Social monitoring	SM1	0.977	0.969	0.976	0.890
	SM2	0.907			
	SM3	0.967			
	SM4	0.887			
	SM5	0.975			

Source: Authors estimation.

Table 7. Fornell Larcker.

	EM	GM	IOC	SDG	SM
EM	0.857				
GM	0.157	0.879			
IOC	0.445	0.172	0.801		
SDG	0.466	0.202	0.813	0.710	
SM	0.432	0.336	0.482	0.547	0.944

Source: Authors estimation.

Table 7 shows the 'Fornell Larcker' outcomes that indicated the first value in the column is bigger than the rest and show a low correlation between variables and valid discriminant validity.

In addition, 'cross-loadings' results in Table 8 also indicated that the variable items have larger values than the other variables' items. These outcomes also show a low correlation between variables and valid discriminant validity.

Table 8. Cross-loadings.

	EM	GM	IOC	SDG	SM
EM1	0.856	0.152	0.368	0.365	0.350
EM2	0.833	0.136	0.406	0.382	0.382
EM3	0.894	0.132	0.413	0.425	0.377
EM4	0.823	0.127	0.315	0.362	0.342
EM5	0.880	0.128	0.394	0.454	0.395
GM1	0.161	0.924	0.208	0.241	0.327
GM2	0.144	0.910	0.160	0.176	0.290
GM3	0.122	0.831	0.056	0.124	0.288
GM4	0.106	0.849	0.111	0.109	0.266
IOC1	0.355	0.131	0.802	0.630	0.393
IOC2	0.345	0.180	0.784	0.636	0.382
IOC3	0.384	0.092	0.837	0.643	0.351
IOC4	0.356	0.072	0.811	0.580	0.316
IOC5	0.364	0.151	0.832	0.726	0.404
IOC6	0.338	0.207	0.819	0.738	0.440
IOC7	0.373	0.134	0.793	0.698	0.452
IOC8	0.337	0.116	0.729	0.516	0.324
SDG1	0.188	0.214	0.282	0.466	0.354
SDG10	0.397	0.127	0.580	0.770	0.439
SDG11	0.341	0.166	0.782	0.847	0.448
SDG12	0.329	0.145	0.433	0.653	0.401
SDG13	0.307	0.129	0.371	0.657	0.298
SDG14	0.343	0.099	0.375	0.624	0.327
SDG15	0.348	0.133	0.413	0.669	0.327
SDG16	0.317	0.151	0.362	0.645	0.301
SDG17	0.344	0.127	0.455	0.715	0.384
SDG2	0.368	0.158	0.411	0.682	0.340
SDG3	0.247	0.144	0.247	0.480	0.338
SDG4	0.369	0.104	0.464	0.674	0.425
SDG5	0.340	0.173	0.786	0.850	0.450
SDG6	0.396	0.137	0.780	0.773	0.437
SDG8	0.342	0.170	0.774	0.850	0.453
SDG9	0.344	0.176	0.794	0.846	0.453
SM1	0.419	0.320	0.456	0.514	0.977
SM2	0.377	0.300	0.437	0.531	0.907
SM3	0.425	0.306	0.464	0.498	0.967
SM4	0.397	0.337	0.458	0.519	0.887
SM5	0.417	0.320	0.454	0.519	0.975

Source: Authors estimation.

Table 9. Heterotrait Monotrait ratio.

	EM	GM	IOC	SDG	SM
EM					
GM	0.166				
IOC	0.484	0.165			
SDG	0.504	0.204	0.799		
SM	0.459	0.352	0.506	0.570	

Source: Authors estimation.

In addition, the 'HTMT ratio' results in Table 9 also indicated the values of HTMT ratios are lower than 0.90. These outcomes also show a low correlation between variables and valid discriminant validity.

The results in Table 10 related to the path analysis revealed that environmental monitoring and social monitoring have a positive and significant linkage with the SDGs achievement and accept H1 and H2. In contrast, governance monitoring has a positive but insignificant linkage with the SDGs achievement and reject H3. In addition, the

Table 10. A path analysis.

Relationships	Beta	S.D.	T statistics	*p* values	U.L.	L.L.
EM -> SDG	0.082	0.041	2.001	0.024	0.016	0.149
GM -> SDG	0.012	0.034	0.348	0.364	−0.051	0.067
IOC -> SDG	0.690	0.035	19.538	0.000	0.625	0.747
SM -> SDG	0.176	0.046	3.847	0.000	0.108	0.252
SM -> IOC -> SDG	0.244	0.043	5.609	0.000	0.165	0.322
GM -> IOC -> SDG	0.005	0.030	0.170	0.433	−0.045	0.048
EM -> IOC -> SDG	0.201	0.047	4.297	0.000	0.127	0.285

Source: Authors estimation.

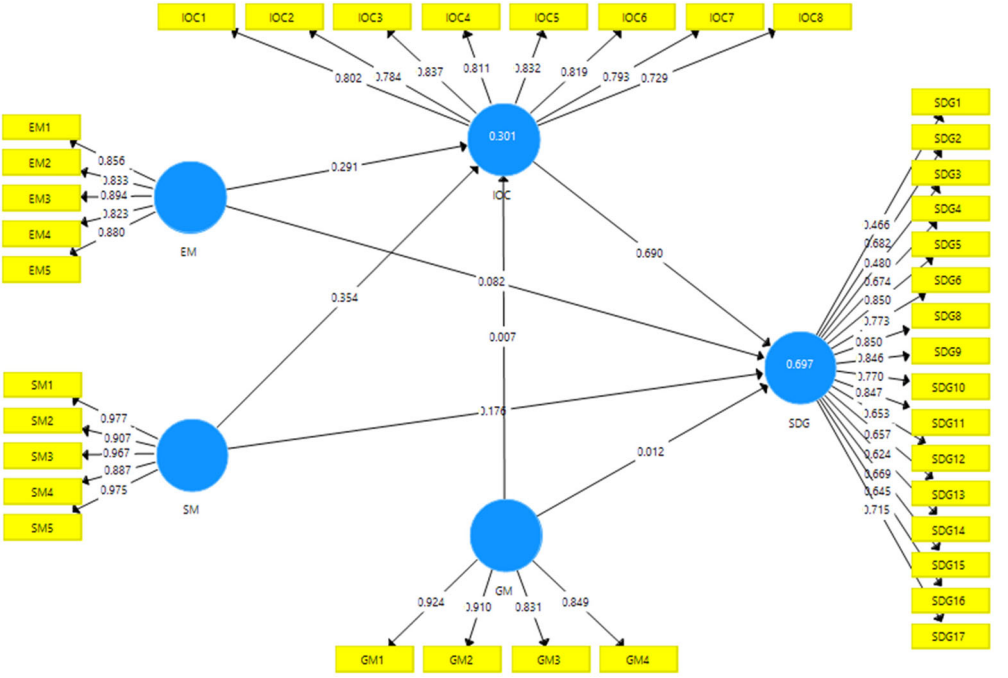

Figure 2. Measurement model assessment.
Source: Author's Estimation.

findings also exposed that innovative organizational climate significantly mediates among environmental monitoring, social monitoring and SDGs achievement and accept H4 and H5. In contrast, the findings also showed that innovative organizational climate insignificantly mediates among governance monitoring and SDG achievement and reject H6.

Discussion

The results derived from Figures 2 and 3, stated that environmental monitoring in ESG implication has a positive relation to SDGs. These results are supported by Vanham et al. (2019), which shows that environmental monitoring encourages water management, maintenance of sanitation, waste management, and energy efficiency management within business enterprises. This reduces greenhouse gas emissions, chemicals extractions, the production of harmful substances and pollution of any kind. The control of environmental pollution is an excellent contribution of

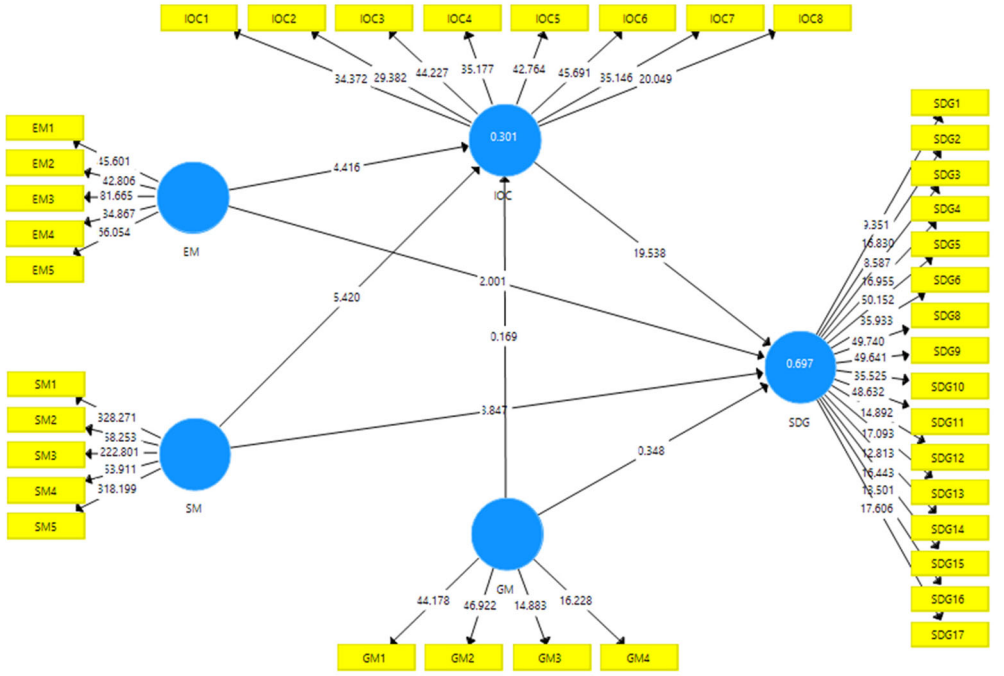

Figure 3. Structural model assessment.
Source: Author's Estimation.

environmental monitoring in ESG to SDGs achievement. These results also agree with Fraisl et al. (2020), which suggests that the formation and execution of the appropriate mechanisms and practices analyze the features of the environment, the negative changes in environmental quality because of the business activities, and the struggles to remove these negative changes maintains the quality of the environment. The protection of natural resources, as a result of environmental monitoring, provides for the future performance of the economy through the achievement of SDGs. These results also match with Eisenmenger et al. (2020), which shows that environmental monitoring forces the firms to pay attention to the quality of products or customers which they attend to present in the market. The quality products and advertisement and marketing services must be ecologically friendly. This ensures the SDGs relating to climate action and the health of customers.

The results stated that social monitoring in ESG implication has a positive relation to SDGs. These results are supported by Singhania and Saini (2022), which shows that the social monitoring in ESG clarifies what the people in contact think or perceive of the firm brand, customers services, and behavior, what sort of relations the firms have with its stakeholders, and whether they activities suitable for the stakeholders' wellbeing or against it. The objective of the social monitoring is to remove the flaws which are found during the recognition process and improve the stakeholders' wellbeing, which is part of the SGDs. These results are also in line with Zhan and Santos-Paulino (2021), which highlights that social monitoring motivates the firms to perform the business functions in such a manner as to ensure sound relations with the employees. In this process, the firms' initiatives like taking care of

their needs, providing them with a healthy environment, and appreciating their performance through rewards or honors, are taken. This improves the health and well-being of the employees, and their improved performance also helps to achieve environmental and financial goals. So, social monitoring help attains SDGs.

The results revealed that governance monitoring in ESG implication has a positive relation to SDGs. These results are supported by Thakhathi et al. (2021), which suggests that ESG monitors that the firm management and personnel feel their responsibility towards the wellbeing of the firm and their struggles to protect the firms' name, promote brand image, and maintain its financial position. The sense of responsibility in the personnel towards the firm motivates them to work efficiently and maintain its social and environmental performance as well. Hence, almost all the SDGs based on the three pillars of the social, environmental, and economic wellbeing of the country are possible to achieve. These results agree with Öberg et al. (2018), who analyzes the governance monitoring the part of ESG score and its role in getting SDGs for the country. They have the view that the monitoring and recognition of the business management its efficiency and effectiveness in managing all the business departments, setting their processing according to the firms' goals and getting them to achieve the concerned economic goals. The governance reduces the expected risks exposures, gain competitive advantages and with higher performance, contributes to the country's sustainable development.

The results revealed that innovative organizational climate is a considerable mediator between environmental monitoring in ESG and the SDGs attainment. These results agree with Fritz et al. (2019), which shows that when the ESG score is applied to business firms for environmental monitoring or regulations, the firms employ the resources and material of good quality and in ecological friendly manners so that a pollution-free work environment can be created for the employees, it brings a positive change in the organizational climate. This encourages an innovative and creative atmosphere within the organization. The innovative climate, as a result of ESG environmental monitoring, not only improves the environmental quality but also creates innovation in the business operations and products quality. Consequently, the SDGs like good health, innovation, smooth work, increased and accountable production, industrial progress, economic growth, etc., are easy to achieve. These results match with Anser et al. (2021), which highlights that when under environmental monitoring of ESG, there is stress on the firms to improve the environmental performance, the management keeps a check on the quality of the technology, effects of material quality and resources allocation and always try to keep them up-date. As a result, there develops an innovation-oriented climate within the organization and the firms' contribution to the achievement of SDGs.

The results indicated that innovative organizational climate is a considerable mediator between social monitoring in ESG and the SDGs attainment. These results match with Zhang et al. (2022), according to which, the social monitoring in ESG builds the firms' relationship with the stakeholders, and the effective communication helps the firms' management to be aware of the innovation in the quality of technologies, equipment, resources and material and the change in the strategies applied by the rivals firms. The application of these innovative strategies along with technologies,

equipment, resources, and material develop an innovative climate. The innovation-oriented climate stirs the ideas of organizational personnel, and the effective performance leads to the organization towards SDGs achievement. These results are also in line with Zhang et al. (2022), which states that the positive social behavior of the management to the employees motivate them not to press their novel ideas for improvement in firms' possessions, processes, and productivity. The innovation-oriented organizational climate with the innovative techniques and mechanisms improves work performance, production quality and economic growth, which goals to sustainable development.

The results indicated that innovative organizational climate is a considerable mediator between governance monitoring in ESG and the SDGs attainment. These results match with Naciti (2019), when the outsiders like government authorities, investors or other stakeholders have the right to apply ESG score to check the corporate governance through proper mechanisms, the management through its practices develop innovative organizational climate so that with innovative administration and leadership, the social, environmental and economic objectives can be achieved. This ultimately leads to the achievement of SDGs. These results also agree with Ludwig and Sassen (2022), which examines the relationship among ESG score, innovative organizational climate, and SDGs achievement. The study implies that the firms where the corporate governance monitoring ESG practice is being implemented pay attention to innovation and creativity, which is indicated by the organizational climate. The innovative organizational climate, further with the innovation and improvement in the business resources, practices, and outcomes, leads to SDG attainment. These results are supported by Haque and Ntim (2018), which shows that governance monitoring enhances the innovative organizational climate. The innovative organizational climate assists in improving the firm's performance from the three perspectives environmental, social and financial wellbeing and achieving SDGs.

Implications of the study

The current study has tremendous theoretical significance on account of its contribution to the literature on sustainable development. The study explores the impacts of ESG practices like environmental monitoring, social monitoring, and governance monitoring on SDGs achievement. In the past literature, ESG with the relation to SDGs attainment has a broad place. But, the relationship of ESG collectively with its concepts and practices with the SDGs achievement or sustainable development has been examined. This study throws light on the ESG score and gives it detail from three perspectives of environmental monitoring, social monitoring, and governance monitoring for attaining SDGs. The study explores the mediating role of innovative organizational climate as a mediator between the ESG practices environmental monitoring, social monitoring, governance monitoring and SDGs. Before this, only the direct relation of innovative organizational climate with ESG and SDGs has been examined. So, the present study extends the scope of literature with the analysis of organizational innovation climate as a mediator between these factors. The study is highly significant in the emerging economies which have the intention to adopt 17

SDGs accepted in UN-GA resolution or those economies which are in the initial stage to achieve the 17 SDGs. The study is a suitable guideline for the state authority, economists, and business firms. The government of a country that wants to bring development in all spheres of the country through the UN-GA SDGs adoption must establish a commission or agencies for the implication of ESG score in the economic units. This article guides the policymakers while formulating regulations related to the ESG monitoring to attain the SDGs. The economists for developing sustainability in economic performance through SDGs adoption must impose a check on social, environmental, and financial performance through ESG monitoring. Similarly, it is a guideline for the individual business firms that they can contribute to the SDGs achievement through internal environmental, social, and governance monitoring.

Conclusions

In Vietnam, the government has developed many plans for sustainable development, including the textile industry, the largest industry of the economy, other manufacturing and service sectors, social reforms, but still, the country has to face many hurdles in the way to sustainable development. Though the government has initiated to adopt SDGs, still it needs more effort. The present study was written with attention to this issue. It was to check the influences of ESG practices like environmental monitoring, social monitoring, and governance monitoring on SDGs achievement and the role of innovative organizational climate in the middle of ESG practices: environmental monitoring, social monitoring and governance monitoring on SDGs achievement. A questionnaire-based survey was conducted on textile enterprises in Vietnam, and the data about the Variables like environmental monitoring, social monitoring, governance monitoring, innovative organizational climate and SDGs achievement and their relationship were collected. As per the research finding, ESG practices like environmental monitoring, social monitoring, and governance monitoring have a positive relation to SDGs achievement. The results indicated that environmental monitoring helps find flaws in environmental quality along with the reasons and encourages ecological friendly practices like water management, maintenance of sanitation, waste management and energy efficiency management. These all practices are included in SDGs. The results revealed that social monitoring encourages good working relationships with the stakeholders through fair dealings, accountability, responsibility, caring behavior, health caring environment and performance. Such initiatives themselves are the achievement of SDGs, and it makes stakeholders put efforts for SDGs achievement. Corporate governance monitoring improves the efficiency and productivity of the firms, which lead to the achievement of SDGs. The results also indicated that innovative organizational climate is a mediator between the ESG practices environmental monitoring, social monitoring, governance monitoring and SDGs.

Limitations and future recommendations

Some limitations are also there in this study. These limitations should be overcome by authors in future. The study examines only ESG practices like environmental

monitoring, social monitoring, and governance monitoring impacts on SDGs achievement. Though environmental, social, and corporate performance is the basis for the SDGs achievement, it also needs many other things like financial resources and technology improvement etc. So, the scope of the present study is limited and could not be proper guidance for SDGs achievement. The authors must try to analyze all the related things and practices for SDGs achievement. This study examines innovative organizational climate as a mediator between the ESG practices environmental monitoring, social monitoring, governance monitoring and SDGs. Future authors must analyze innovative organizational climate as a moderator between the ESG practices environmental monitoring, social monitoring, and governance monitoring and SDGs for their collective impact on ESG practices environmental monitoring, social monitoring and governance monitoring and SDGs.

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